DOCUMENT RESUME

ED 455 280 TM 033 083

AUTHOR Arce-Ferrer, Alvaro J.; Cab, Victor Pech; Cisneros-Cohernour, Edith J.

TITLE Teachers' Assessment Competencies.

PUB DATE 2001-04-00

NOTE 30p.; Paper presented at the Annual Meeting of the American Educational Research Association (Seattle, WA, April 10-14, 2001).

PUB TYPE Reports - Research (143) -- Speeches/Meeting Papers (150) -- Tests/Questionnaires (160)

EDRS PRICE MF01/PC02 Plus Postage.

DESCRIPTORS Administrators; *Competence; Counselors; Educational Assessment; *Educational Practices; Foreign Countries; *Knowledge Level; *Student Evaluation; *Teacher Attitudes; *Teachers

IDENTIFIERS *Mexico

ABSTRACT

This paper summarizes main findings from an investigation of the familiarity and importance of assessment practices from the perspectives of Mexican teachers, counselors, and administrators. A survey that listed 74 practices, sampling 7 areas of competencies, was assembled from the Code of Fair Testing Practices in Education, the Standards for Teacher Competence in Educational Assessment of Students, Career Counseling Competencies, and relevant assessment practices for Mexico. The survey inquired about the degree of familiarity and degree of importance of the practices for professional development using a continuous score scale. The survey was administered to 200 participants from southern Mexico. Results indicate the familiarity of participants with a great number of the assessment practices. Teachers' answers about the importance of assessment practices for professional development clustered into three groups: (1) skill in choosing assessment methods for instructional decisions; (2) increasing reliability of tests for grading; and (3) skill in communicating assessment results to students. Among the somewhat important knowledge and skills participants identified examining samples of questions or specimen sets, making the least possible measurement error in assessment, and acquiring knowledge about current issues related to computer-assisted career guidance. A third group of practices, considered the least relevant, related to knowledge of statutes related to client confidentiality, knowledge of procedures parents or students may use to complain about assessment, and interpreting grade equivalency scores. (Contains 9 tables and 12 references.) (Author/SLD)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 455 280

RUNNING HEAD: Assessment literacy, assessment competencies, teachers, administrators, and counselors

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

E Cisneros-Cohernour

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

1

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Teachers' assessment competencies

Alvaro J. Arce-Ferrer
Victor Pech Cab
Universidad Autonoma de Yucatan

Edith J. Cisneros-Cohernour
Universidad Autonoma de Yucatan
And
University of Illinois at Urbana-Champaign

Copies of this paper are
available from:
Alvaro J. Arce-Ferrer
Autonomous University of Yucatan, Mexico
aferrer@tunku.uady.mx

TM033083

Paper presented at the Annual Meeting of the American Educational Research Association (División D). Seattle, Washington, April 11, 2001.

BEST COPY AVAILABLE

ABSTRACT

This paper summarizes main findings from an investigation of familiarity and importance of assessment practices from teachers', counselors', and administrators' perspectives. The purpose of the study was to investigate to what extent participants are familiar with and deemed importance for their professional development a set of assessment practices.

A survey with 74 practices, sampling seven areas of competencies, was assembled from The Code of Fair Testing Practices in Education, The Standards for Teacher Competence in Educational Assessment of Students, Career Counseling Competencies, and relevant assessment practices for Mexico. The survey inquired about degree of familiarity and degree of importance for professional development using a continuos score scale.

The survey was administered to a sample of 200 participants from Southern Mexico. Results indicate participants' familiarity with a great number of the assessment practices. With regard to the importance of assessment practices for professional development, teachers' answers naturally clustered in three groups. Among the most important practices are the following: (1) skilled in choosing assessment methods for instructional decisions, (2) increasing reliability of test for grading, (3) skilled in communicating assessment results to students. Among the some what important knowledge and skills were found: (1) Examine specimen sets, disclosed tests, or samples of questions, (2) made assessment least measurement error, (3) acquiring knowledge about current ethical/legal issues with regard to the use of computer-assisted career guidance. The third group comprises the least relevant assessment practices: (1) Knowledge of state and federal status relating to client confidentiality, (2) describe the procedures that test takers or their parents/guardians may use to register complaints and to have problems resolved, and (3) interpreting grade equivalency score.

INTRODUCTION

The school accountability system is undergoing a major revision in Mexico. Mexico's educational policy makers have endorsed benefits of having information on students' achievement from external evaluations. The school accountability process was developed for colleges and institutes first. One of the concrete efforts was the foundation of a National Center for Evaluation (CENEVAL, 1999) in 1994 for developing tests for high stake decisions for high schools, colleges, and professional organizations. Recently policy makers' efforts are directed to developing an Institute for Evaluation to supply information regarding quality of education in Mexico's elementary and high school classrooms.

In the near future a typical teacher in Mexico will spend a significant part of her time dealing with information derived from standardized assessment procedures. In the US, it has been found that as much as one third to one half of teachers' professional time is devoted to assessment practices (Stiggins and Conklin, 1992; Stiggins, 1999). Definitions of competencies to perform this job well are required in Mexico.

Historically the assessment practices in Mexico have been connected to teacher-made instruments. Contrary to the U.S., in which the focus has been on standardized assessment practices (Stiggins, 1999), Mexico has devoted most of the assessment training to increasing teachers' knowledge and skills for constructing instruments for classroom assessment purposes. Even though this practice need to stay, it is necessary to develop competencies on standardized testing, also. It is not uncommon finding teacher training programs with at least a measurement course focusing on item development, table of specifications, test assembling, and test administration from the perspective of teacher-made tests (Arce-Ferrer y Burgos, 1993).

Assessment literacy is an important part of refining teacher-training programs in the US. Impara, Divine, Liverman, and Gay (1991) reported teachers' deficiencies on several topics related to the knowledge of testing principles such as using percentile bands and grade equivalent scores. Other researchers have documented knowledge and skills for counselors and educational administrators (Elmore, Ekston, and Diamond, 1993; Impara and Plake, 1993; Impara and Plake, 1995). Unfortunately, Mexico lacks studies targeting assessment literacy.

Changes in Mexico's approach for bringing quality in education has activated a need for investigating assessment competencies required for being successful users of information derived from standardized achievement testing as well as other kinds of assessment practices. It is important to gather information regarding the current level of assessment literacy since an important part of the school accountability system is the use of assessment results from both standardized achievement testing and classroom testing.

PURPOSE

The primary purpose of this paper is to define general competencies in assessment for pre-service and in-service teachers whose professional interests are in teaching, administration, or counseling areas. The main objectives are to:

1. Collect information about perceptions of familiarity on assessment practices such as choosing, developing, administering, scoring, interpreting, communicating, and legal/ethical issues.

2. Gather information about perceptions of level of importance for professional development of assessment practices such as choosing, developing, administering, scoring, interpreting, communicating, and legal/ethical issues on professional practice.

METHODOLOGY

Survey construction

Survey construction was guided by a set of seven standards similar to those utilized by Impara and Plake (1995). These seven standards are as follows: (1) Selecting assessment methods, (2) developing assessment methods, (3) administering, (4) scoring, (5) interpreting assessment results, (6) communicating assessment results, and (7) recognizing unethical practices.

The Code of Fair Testing Practices in Education, The Standards for Teacher Competence in Educational Assessment of Students, and The Career Counseling Competencies were the source documents. Out of 74 items in the survey, 53 came from direct translation of competencies, 9 from cultural adaptation of competencies, and 12 were developed to target specific assessment practices in Mexico. Table 1 summarizes information about sources used for translated, adapted, and developed items.

Insert Table 1 here

Similar steps to those followed by Arce-Ferrer and Cisneros-Cohernour (2001) were implemented to achieve linguistic similarity and cultural equivalency in the translation of knowledge, skills, and abilities for each of three standards.

1. A bilingual professor with a doctorate in measurement and statistics from an American university translated the practices. Literal translation was conducted for each statement from the standards.

2. Another bilingual professor was asked to translate back to the source language. Similar instructions to achieve linguistic similarity as those given to the previous translator were given to this current sample of translators.

3. Discrepancies in translation were resolved by agreement among the two independent translators.

4. The two professors appraised cultural relevancy of behaviors for an initial set of 63 items. From this analysis, 9 items were modified to increase relevance and one item was dropped. The item dealing with interpreting stanines was removed since in only a few situations has it been used in Mexico.

5. Twelve items were developed based on experience with assessment practices in Mexico.

Sample

The participants in the study were male and female pre-service and in-service teachers with professional interest in teaching, counseling, or administration from the southern region of Mexico. A total sample of 200 participants answered the survey. Approximately two-thirds were pre-service teachers. A little more than one-third of the sample has teaching as their main professional interest, and almost two-fifths of the total samples have counseling as their main professional interest. Almost a half of survey participants reported having taken between three to four courses in which assessment was the main content. Table 2 supplies additional information by professional interest about most frequently used assessment practices and decisions made from assessment instruments.

Insert Table 2 here

Pilot study

The survey was piloted to assess participants' understanding of directions and questions. Results helped in identifying need for modifying question wording as well as identifying a suitable location for displaying survey scale. Regarding the latter, it was judged convenient having a scale for registering familiarity on the left side of the answer sheet and having another scale for reporting degree of importance on the right side.

RESULTS

Main findings from the study are summarized in three sections. First, descriptive information about participants' familiarity is furnished. Second, survey results about participants' self-report of importance for professional practice are described. Finally, in the last portion, results from Impara and Plake (1995) are used to compare results from this study.

Basic descriptive statistics was utilized to analyze survey responses. From a total of 200 participants, 169 participants' answers were processed. Approximately 31 participants did not return the survey. The use of two follow-up letters increased participants' response rate by 3%.

Familiarity with assessment practices

Table 3 summarizes descriptive information about participants' familiarity with assessment practices by area and professional interest.

Insert Table 3 here

From Table 3, it can be observed that the lowest group means were for the assessment standard dealing with administration. It can be observed that teachers, administrators, and counselors reported having the lowest familiarity. For example, Table 3 depicts that approximately four-fifths of teachers were familiar with the set of test administration practices. Similar percentages were observed for administrators and counselors, also.
On the other hand, the largest group means were observed for the standard connected to developing assessments. Most of the participants reported being familiar with developing assessment practices.

In few occasions large differences were observed among members of each professional interest group regarding self-reported familiarity on each standard. Table 4 and Table 5 summarizes the three most familiar and the three less familiar skills and knowledge for each competency, respectively

---

Insert Table 4 and Table 5 here

Importance for professional practice

Table 6 summarizes descriptive information for each of the three groups. It can be noticed that knowledge and skills related to assessment administration and assessment interpretation contains

the lowest mean percentage of importance for professional practice. On the other hand, the assessment practices with the largest means for the three groups were observed for the developing assessment area. On the average, the mean proportion of importance for the three groups was about 85%.

Insert Table 6 here

Even though, the above observations were not of statistical significance, they can be used qualitatively to guide specific search of important knowledge and skills in each of the seven competency areas. Table 7 presents relevant information about competencies for selecting assessment procedures. Similar tables, which are in the appendix, can be consulted for the other areas of competency.

Insert Table 7 here

The analysis at the survey item level revealed divergence among three groups regarding what is deemed important for professional practice. For example, in Table 7 it can be observed that teaching and counseling groups deemed as the most important skill choosing assessment methods whereas administrators valued most using them when complete assessment information is available. It can be observed that while for the administrators, the above behavior was the most important behavior (M = 91, SEM= 2.5), for the teaching and counseling groups were the second (M = 82, SEM=3.6) and the third (M = 84, SEM=3.0), respectively.

Divergences among groups were observed for the less important region of the continuum, also. From Table 7, variability can be observed of what is deemed less important for professional practice for each of the three groups. For instance, in teachers' group opinion, reviewing the performance of test takers of different background was the least in importance and for counseling group it was evaluating the procedures used by test developers to avoid potentially insensitive content or language. A somewhat contradictory result emerges after identifying the less important knowledge and skill for the administration group. Table 7 indicates that examining specimen sets, disclosed tests or samples of questions is of no importance for their professional practice, even though a similar skill was judged as the most important before.

To gain a better understanding of the results from this study, a comparison of measurement competencies of teachers, counselors and administrators in the U.S was conducted. Impara and Plake's (1995) results of a survey that examines the competencies of teachers, counselors, and administrators were considered as an external point to understand results from this study. It is relevant to acknowledge the qualitative value of the comparison between the two study findings.

While results from Impara and Plake's study arose from a test of measurement concepts, results from this study are from a self-report assessment of importance of measurement concepts for professional practice. Table 8 presents comparative results from the before mentioned studies.

Insert Table 8 here

There are some similarities and differences between results from the two studies. As a single group, administrators, counselors, and teachers from the U.S performed higher in 11 out of the 20 knowledge and skills than those in the study sample. U.S practitioners are more proficient than Mexico's sample on the following behaviors:

- Selection of assessment method (basis).
- Determining validity
- Item construction --essay/performance
- Interpreting teacher-made test score
- Interpreting grade equivalency scores
- Interpreting percentile band scores
- Explain basis for grading
- Using test for resource allocation
- Displaying of grade --privacy
- Test as only criterion for grade
- Determining acceptable actions on standardized tests

Another important information in Table 8 is the high discrepancies between the U.S. teachers and study sample teachers with regard to knowledge and importance of measurement concepts. There are some practices in which assessment knowledge of US teachers is larger than the degree of importance for professional practice in the study sample (Mexico). For example, while 94 percent of the U.S. sample answered correctly an item dealing with validity, the importance of this assessment concept was judged as being 75 percent relevant for professional practice. That is, while the concept of validity not only is fundamental but also teachers' competencies on it are high, its relevance for a sound professional practice is deemed not very important in Mexico's sample.

There are other practices in which teachers from both countries are alike. For example, for the assessment practice dealing with using norms correctly, 77 percent of the US sample answered correctly on a test of measuring concepts and Mexico's sample judged 75 percent of relevance to professional work.

Finally, there are some practices in which teachers from both countries shared similar responses. These are the practices regarding to low training and low perceived importance of training for

professional practice. For the standard dealing with interpreting assessment results, in two out of three behaviors, it was found both low achievement and low importance for professional practice. For example, for the behavior interpreting grade equivalency score, Table 3 indicates that around 63% of the U.S. sample answered correctly a prompt measuring such a concept and Mexico's sample rated its importance low for their professional performance.

DISCUSSION OF RESULTS

Mexico is moving into standardized achievement practices, and for maximizing such an investment of resources, it will be of interest to have a base line of its assessment literacy. Contrary to other countries, such as the U.S., use of standardized achievement tests, as part of the education quality assurance is new among most of school personnel. Most teachers, counselors, and administrators graduated from programs lacking training on standardized achievement testing (CENEVAL, 2000). An effect of a curriculum centered on teacher-made assessment arises from observing that 94 % the U.S. sampled teachers demonstrated competence in validity issues. The sample from Mexico acknowledged that validity knowledge and skills are important to their professional practice up to 75%. Counselors seem not to be trained on assessment issues, either. While 91% of the U.S. sampled counselors demonstrated proficiency in meaning of measurement error, the importance assigned to such a practice in this study was of 68%.

Finally, samples of administrators from the U.S. and Mexico performed similarly in most of the competency areas in the survey. However, for the competencies dealing with unethical assessment practices, the U.S. sample is more aware than Mexico's sample. On a test of measurement concepts, items dealing with privacy of information, using test as only criterion for grade, and taking acceptable actions on standardized tests obtained large p-values. However, same content was judged partially relevant in Mexico's sample. It is relevant saying that a similar scenario was observed for counselors and teachers, also.

A second comment is directed to a need for college programs and professional organizations to move toward defining assessment competencies for a fair practice. We expect seeing a growing movement in some professional organizations in Mexico to define their assessment competencies. To catalyze such a development, it is important to be aware about potential benefits when having an initial set of knowledge and skills deemed valuable for assessment practices. This initial set of competencies might help during curriculum revision of teacher, counselor, and administrators programs, for preparing professional improvement courses, and perhaps creating a debate about whether developing or not state mandated teacher, counselor, and administrator certification programs.

A third comment is directed to a need for defining an accountability system for supervising testing practices around Mexico. In spite of Mexico's desire to develop a fair testing system, there are no state and federal statutes to protect test users against testing malpractice. As a difference from the U.S. in which testing companies are accountable for unethical practice, there is no organization available in Mexico to defend test users against malpractice from testing companies. This situation is of concern when we take into account the lack of academic programs available to train measurement specialists in all Mexico.

Finally, findings from this survey need to be seen only as initial results. The lack of a larger sample size reduces the generalization of results to all Mexico. There is a possibility of finding school personnel with different opinions to those from the sample. In addition, it is relevant to

acknowledge the confounding of training and importance. For Mexico's sample, training on some assessment concepts might be taking place and even though their perception of importance for professional practice is regarded low among school personnel such as teachers, counselors, and administrators. We acknowledge that the opposite, not being trained, but perceiving the practice important might be the most likely. Further research to assess the degree of assessment literacy will supply valuable information in addition to the one gathered on this self-reported study.

REFERENCES

Arce-Ferrer, A. and Burgos, R. (1993). Curriculum design and evaluation for a teacher training program. Paper presented at the annual meeting of school administration. Mexico.

Arce-Ferrer, A. Cisneros-Cohernour, E. and Cocom, J. (2001). Standardized Assessment in Mexico: Issues on interpretation and use of assessment results. Paper presented at the at the Annual Meeting of the American Educational Research Association (División D). Seattle, Washington.

American Federation of Teachers, National Council on Measurement on Education, & National Education Association (1990). Standards for teacher competence in educational assessment of students. Educational Measurement. Issues and Practice, 9(4), 30-32.

CENEVAL (1999). Estatuto del Centro Nacional de Evaluación para la Educación Superior, A.C. CENEVAL, México.

CENEVAL (2000). Estándares de calidad para instrumentos de evaluación educativa. CENEVAL, México.

Elmore, P., Ekstrom, R., and Diamond, E. (1993). Counselors' test use practices. Indicators of the adequacy of measurement training. Measurement and Evaluation in Counseling and Development, 26, 116-124.

Impara, J., Divine, k., Bruce, F., Liverman, M., and Gay, A. (1991). Teachers' ability to interpret standardized test scores. Educational Measurement: Issues and Practice, 10(4), 16-18.

Impara, J. and Plake, B. (1993). Joint committee on competency standards in student assessment of educational administrators update: Assessment survey results. Paper presented at the 1993 annual meeting of the National Council on Measurement in Education, Atlanta, GA.

Impara, J. and Plake, B. (1995). Comparing counselors', school administrators', and teachers' knowledge in student assessment. Measurement & Evaluation in Counseling & Development, 28(2), 78-87.

Joint Committee on Testing Practices (1988). Code of Fair Testing Practices in Education. Washington, D.C.

National Career Development Association (1992). Career Counseling Competencies. Career Development Quarterly, 40(4), 378-386.

Stiggins, R. and Conklin, N. (1992). In teachers' hands: Investigating the practice of classroom assessment. Albany, NY: SUNY Press.

Stiggins, R. (1999). Evaluating classroom assessment training in teacher education programs. Educational Measurement: Issues and practice, 18(1), 23-27.

Table 1:

Sources for survey items

Standard	Selecting	Developing	Administering	Scoring	Interpreting	Comunic:
Code of fair testing practices in education	T=**8** A=**1** N=0	T=**2** A=0 N=0	T=0 A=0 N=0	T=0 A=0 N=0	T=**4** A=0 N=0	T=0 A=0 N=0
Standards for Teacher Competence in Educational Assessment of Students	T=**2** A=**2** N=0	T=**3** A=0 N=0	T=0 A=0 N=**2**	T=**4** A=0 N=**3**	T=**7** A=**1** N=**4**	T=**1** A=0 N=**3**
Career counseling competencies	T=**6** A=**1** N=0	T=0 A=0 N=0	T=**1** A=**1** N=0	T=0 A=0 N=0	T=**1** A=0 N=0	T=**2** A=0 N=0
Totals	T=**16** A=**4** N=0	T=**5** A=0 N=0	T=**1** A=**1** N=**2**	T=**3** A=0 N=**4**	T=**12** A=**1** N=**4**	T=**3** A=0 N=**3**

T=Direct translation
A=Linguistically and culturally adapted
N=Newly developed for the study

Table 2:

Assessment instruments and use of assessment results by professional interest

Professional interest		Assessment instruments							
	N	My own classroom test %	Standarized test %	Others classroom test %	Oral test %	Essay %	Term papers %	Portfolios %	Expe
Teaching	62	53.23	17.74	9.68	20.97	16.13	11.29	1.61	3
Administration	29	27.59	34.48	10.34	3.45	6.90	6.90	3.45	6
Counseling	69	26.09	33.33	8.70	10.14	5.80	4.35	1.45	1

Professional interest		Uses of assessment results							
	N	Grading %	Admission %	Diagnostic %	Placement %	Formative %	Scholar Ship %	Counseling %	Voca orien
Teaching	62	50.00	11.29	20.97	4.84	9.68	0.00	6.45	4.
Administration	29	31.03	10.34	10.34	0.00	6.90	3.45	3.45	13
Counseling	69	27.54	8.70	10.14	2.90	4.35	2.90	21.74	17

BEST COPY AVAILABLE

Table 3:

Descriptive information about participants' familiarity with assessment practices by area and professional interest

Professional Interest	Selecting		Developing		Administering		Scoring		Interpreting	
	%	SE	%	SE	%	SE	%	SE	%	SE
Teaching	88.5	(2.01)	91.8	(2.00)	79.8	(3.14)	87.5	(1.72)	87.6	(1.80)
Administration	87.6	(3.64)	92.4	(2.70)	83.0	(4.98)	90.4	(2.52)	87.6	(3.09)
Counseling	92.0	(1.66)	87.2	(2.47)	80.9	(3.10)	88.4	(2.39)	86.5	(2.09)

Table 4:

Most familiar knowledge and skills for school administrators, counselors, and teachers

Item description	Most Familiar [a]		
	A[1]	C[2]	T[3]
Competency I: Selecting			
Knowledge about instruments and techniques to assess leisure.	100.0	95.6	88.7
Read the materials provided by test developers and avoid using tests for which unclear or incomplete information is provided.	100.0	97.1	91.9
Knowledge about instruments and techniques to assess personal characteristics.	96.5	100.0	93.5
Competency II: Developing			
Should be skilled in developing assessment methods.	93.1	88.4	93.5
Ascertain whether the test content and norm group(s) or comparison group(s) are appropriate.	100.0	98.5	96.7
Competency III: Administering			
Should be skilled in administering teacher-produced assessment methods.	92.8	83.8	91.9
Ability to administer, score and report findings from career assessment instruments.	79.3	88.4	82.2
Competency IV: Scoring			
Reliability of tests for grading.	96.5	95.6	98.3
Should be able to explain the rationale for choosing grading practices.	85.7	92.7	95.1
Explain basis for grade.	93.1	92.6	95.1
Competency V: Interpreting			
Should be able into consideration students characteristics as part of score interpretation	100.0	92.7	93.5
Should be skilled in using assessment results when making decisions	93.1	91.3	98.3
Obtain evidence to help show that the test is meeting its intended purpose(s).	89.6	89.8	98.3
Competency VI: Communicating			
Should be skilled in communicating assessment results to students.	89.6	92.7	96.7
Ability to write a thorough and substantiated report of assessment results.	96.5	94.2	91.9
Should be skilled in communicating assessment results to parents.	89.6	91.3	98.3
Competency VII: Ethical/legal Issues			
Knowledge about acceptable actions on standardized tests.	93.1	97.1	88.5
Display of grade--privacy.	93.1	98.5	95.1
Provide test takers the information they need to be familiar with the coverage of the test.	93.1	94.2	86.9

[a] On a self report of familiarity
[1] Percentage for administrator
[2] Percentage for counselor
[3] Percentage for teacher

Table 5:

Less familiar knowledge and skills for school administrators, counselors, and teachers

Item description	Less Familiar[a]		
	A[1]	C[2]	T[3]
Competency I: Selecting			
Examine specimen sets, disclosed tests or samples of questions.	68.9	88.4	72.5
Knowledge about instruments and techniques to assess works conditions.	79.3	88.4	87.1
Review the performance of test takers of different backgrounds when samples of sufficient size are available.	79.3	81.1	75.8
Competency II: Developing			
Item construction—essay/performance.	89.6	82.6	88.7
Made assessment least measurement error.	89.6	78.2	90.3
Competency III: Administering			
Should be skilled in administering externally-produced assessment methods.	79.3	79.7	67.7
Knowledge of and ability to effectively and appropriately use computer-assisted assessment measures and techniques.	79.3	72.4	77.4
Competency IV: Scoring			
Should be skilled in scoring externally-produced tests.	79.3	78.2	61.2
Weighting test scores to give grades.	92.8	85.5	82.2
Should be skilled in scoring teacher-produced tests.	93.1	85.2	87.1
Competency V: Interpreting			
Know basis for comparing schools' test scores.	68.9	72.0	70.0
Interpret percentile band scores.	79.3	79.4	65.5
Interpret Grade Equivalency score.	68.9	66.6	65.5
Competency VI: Communicating			
Explaining discrepancy between classroom and standard test scores.	75.8	77.9	80.6
Ability to assist client and others designated by the client to interpret data from assessment instruments	89.6	76.8	83.8
Competency VII: Ethical/legal Issues			
Knowledge of state and federal statutes relating to client confidentiality.	65.5	68.1	60.6
Describe the procedures that test takers or their parents/guardians may use to register complaints and have problems resolved.	72.4	68.1	70.9
Knowledge about current ethical/legal issues with regard to the use of computer-assisted career guidance.	79.3	79.7	73.7

[a] On a self report of familiarity
[1] Percentage for administrator
[2] Percentage for counselor
[3] Percentage for teacher

Table 6:

Descriptive information of self-reported importance of assessment practices by area and professional interest

Professional interest	Selecting		Developing		Administering		Scoring		Interpreting	
	%	SE	%	SE	%	SE	%	SE	%	SE
Teaching	83	(1.5)	85	(1.6)	80	(1.8)	83	(1.5)	79	(1.5)
Administration	86	(1.9)	87	(2.3)	81	(2.1)	84	(2.3)	84	(1.7)
Counseling	83	(1.6)	83	(1.6)	76	(1.2)	76	(1.9)	77	(1.6)

Table 7:

Degree of relevance of competencies in selecting assessment procedures for professional development

Assessment practices	Degree of importance for[a]		
	A[1]	C[2]	T[3]
1. Examine specimen sets, disclosed tests or samples of questions.	59.5 (7.9)	68.5 (3.6)	61.3 (5.3)
2. Knowledge about instruments and techniques to assess works conditions.	72.4 (7.3)	69.2 (4.1)	71.8 (4.2)
3. Should be skilled in choosing assessment methods appropriate for instructional decisions.	76.7 (5.9)	81.5 (3.2)	89.5 (2.7)
4. Review the performance of test takers of different backgrounds when samples of sufficient size are available.	69.0 (6.9)	69.9 (4.7)	58.1 (4.9)
5. Knowledge about instruments and techniques to assess leisure.	87.1 (3.2)	85.5 (3.1)	74.6 (4.0)
6. Selection of assessment method--basis.	87.0 (4.4)	85.0 (2.5)	81.0 (3.4)
7. Ability to evaluate assessment in terms of validity and reliability.	82.8 (5.3)	77.5 (3.3)	74.6 (4.2)
8. Read the materials provided by test developers and avoid using tests for which unclear or incomplete information is provided.	91.4 (2.6)	83.7 (3.0)	81.9 (3.7)
9. Using norms correctly.	86.0 (4.2)	82.0 (2.9)	79.0 (3.8)
10. Read independent evaluations of a test and of possible alternative measures.	63.8 (6.6)	68.1 (3.9)	65.3 (4.5)
11. Knowledge about instruments and techniques to assess personal characteristics.	85.3 (4.6)	88.0 (2.3)	80.7 (3.4)
12. Define the purpose and then select a test for that purposes and that population to be tested.	70.7 (7.3)	76.5 (3.9)	78.6 (4.2)
13. Evaluate the procedures used by test developers to avoid potentially insensitive content or language.	76.7 (5.8)	64.5 (4.2)	71.4 (4.0)
14. Select and use only those tests for which the skills needed to administer the test and interpret scores correctly are available.	69.0 (5.8)	71.7 (3.9)	70.2 (3.4)
15. Ability to select and use instruments proper to client's physical.	70.7 (6.8)	80.8 (3.4)	73.4 (3.9)
16. Ability to select assessment techniques appropriate for group/individual administration.	81.9 (5.7)	73.9 (3.7)	80.2 (3.2)
17. Use appropriately modified forms or administration Warn test users procedures for test takers with handicapping conditions.	70.7 (6.9)	72.5 (4.5)	70.2 (4.3)
18. Become familiar with how and when the test was developed and developed and tried out.	75.9 (5.9)	76.5 (3.5)	72.2 (4.3)

19. Knowledge about variables such as ethnicity.	77.6 (6.0)	82.3 (3.2)	78.6 (4.2)
20. Standard test--meaning of measurement error.	72.0 (6.7)	68.0 (4.2)	75.0 (3.9)

[a] On a self-report of importance grade
[1] Percentage of importance for administrator
[2] Percentage of importance for counselor
[3] Percentage of importance for teacher

Table 7_b:

Degree of relevance of competencies in developing assessment procedures for professional development

Item description	Importance grade for[a]		
	A[1]	C[2]	T[3]
1. Item construction—essay/performance.	75.0 (5.8)	61.2 (4.3)	73.0 (4.1)
2. Should be skilled in developing assessment methods.	81.0 (5.4)	75.0 (3.7)	83.9 (3.5)
3. Investigate potentially useful sources of information, to corroborate the information provided by tests.	78.4 (5.6)	70.6 (4.0)	66.5 (3.9)
4. Made assessment least measurement error.	75.0 (5.9)	65.0 (4.7)	78.0 (3.9)
5. Ascertain whether the test content and norm group(s) or comparison group(s) are appropriate.	91.4 (2.2)	90.6 (2.1)	86.3 (3.1)

[a] On a self-report of importance grade
[1] Percentage of importance for administrator
[2] Percentage of importance for counselor
[3] Percentage of importance for teacher

Table 7_c:

Degree of relevance of competencies in administering assessments for professional development

Item description	Importance grade for[a]		
	A[1]	C[2]	T[3]
1. Should be skilled in administering externally-produced assessment methods.	60.3 (6.8)	58.3 (4.2)	52.4 (5.1)
2. Knowledge of and ability to effectively and appropriately use computer-assisted assessment measures and techniques.	58.6 (6.5)	56.2 (4.8)	57.3 (4.7)
3. The teacher should be skilled in administering teacher-produced assessment methods.	74.1 (5.9)	58.7 (4.3)	75.8 (3.8)
4. Ability to administer, score and report findings from career assessment instruments.	73.2 (7.0)	72.1 (4.0)	68.1 (4.6)

[a] On a self-report of importance grade
[1] Percentage of importance for administrator
[2] Percentage of importance for counselor
[3] Percentage of importance for teacher

Table 7_d:

Degree of relevance of competencies in scoring assessments for professional development

Item description	Importance grade for[a]		
	A[1]	C[2]	T[3]
1. Should be skilled in scoring externally-produced tests.	58.6 (6.8)	49.3 (3.9)	43.5 (4.9)
2. Should be skilled in scoring teacher-produced tests.	79.3 (5.6)	62.7 (4.4)	75.0 (3.6)
3. Should be able to explain the rationale for choosing grading practices.	73.3 (6.8)	79.3 (3.6)	86.3 (3.2)
4. Recognize sound grading practice	82.0 (5.7)	71.0 (3.8)	74.0 (4.1)
5. Reliability of tests for grading.	88.0 (4.0)	80.0 (3.1)	87.0 (2.4)
6. Explain basis for grade.	83.0 (5.1)	70.0 (3.7)	78.0 (3.3)
7. Weighting test scores to give grades.	70.0 (5.9)	61.0 (4.0)	66.0 (4.7)

[a] On a self-report of importance grade
[1] Percentage of importance for administrator
[2] Percentage of importance for counselor
[3] Percentage of importance for teacher

Table 7_e:

Degree of relevance of competencies in interpreting assessment results for professional development

Item description	Importance grade for[a]		
	A[1]	C[2]	T[3]
1. Know basis for comparing schools' test scores.	59.0 (7.9)	50.0 (4.5)	59.0 (4.5)
2. Explain how any passing scores were set and gather evidence to support the appropriateness of the scores.	77.6 (6.0)	73.9 (3.8)	74.2 (3.4)
3. Ability to interpret data from assessment instruments and present the results to client and to others designated by client.	75.0 (5.7)	75.7 (3.6)	73.0 (3.6)
4. Test as only criterion for grade.	75.0 (6.4)	77.0 (3.8)	77.0 (4.2)
5. Standard test data most useful for classroom	70.0 (5.6)	60.0 (3.6)	66.0 (4.1)
6. Should be able into consideration students characteristics as part of score interpretation.	81.9 (3.7)	73.9 (3.5)	73.8 (3.6)
7. Should be skilled in using assessment results when making decisions.	81.9 (4.8)	72.5 (3.6)	81.8 (2.7)
8. Interpret teacher-made test score.	78.4 (5.5)	63.0 (4.7)	77.0 (3.5)
9. Obtain evidence to help show that the test is meeting its intended purpose(s).	84.5 (5.7)	72.5 (3.8)	84.7 (2.5)
10. Should be able to establish validity of decisions made from assessment results.	79.3 (5.6)	76.8 (3.4)	79.4 (3.5)
11. Avoid using tests for purposes not specifically recommended by the test developer.	73.3 (5.9)	80.1 (3.0)	66.5 (4.8)
12. Interpret percentile band scores.	64.0 (6.9)	57.0 (4.4)	50.0 (5.2)
13. Obtain information about the scale used for reporting scores, the characteristics of any norms or comparison group(s).	77.6 (5.3)	71.4 (3.9)	72.2 (3.8)
14. Using tests for resource allocation.	73.3 (5.5)	59.0 (4.1)	60.0 (4.3)
15. Interpret Grade Equivalency score.	55.0 (7.6)	47.0 (4.5)	48.0 (5.0)
16. Should be skilled in interpreting the results of externally produced assessment methods.	73.3 (5.1)	62.3 (4.1)	58.1 (4.4)
17. Should be skilled in interpreting the results of teacher-produced assessment methods.	75.9 (5.7)	59.4 (4.4)	77.8 (3.7)

[a] On a self-report of importance grade
[1] Percentage of importance for administrator
[2] Percentage of importance for counselor

[3] Percentage of importance for teacher

Table 7_f:

Degree of relevance of competencies in comunicating assessment results for professional development

Item description	Importance grade for[a]		
	A[1]	C[2]	T[3]
1. Teachers should be skilled in communicating assessment results to students.	83.6 (6.1)	76.8 (3.5)	88.3 (3.0)
2. Ability to write a thorough and substantiated report of assessment results.	83.6 (4.5)	78.3 (3.1)	80.6 (3.7)
3. Teachers should be skilled in communicating assessment results to parents.	71.5 (6.2)	69.2 (3.7)	79.8 (3.3)
4. Teachers should be skilled in communicating assessment results to others educators.	67.2 (6.0)	57.6 (3.7)	65.7 (3.6)
5. Explaining discrepancy between classroom and standard test scores.	66.0 (7.7)	57.0 (4.4)	60.0 (4.6)
6. Ability to assist client and others designated by the client to interpret data from assessment instruments.	75.0 (5.7)	61.6 (4.7)	63.7 (4.3)

[a] On a self-report of importance grade
[1] Percentage of importance for administrator
[2] Percentage of importance for counselor
[3] Percentage of importance for teacher

Table 7_g:

Degree of relevance of competencies in ethical/legal issues for professional development

Item description	Importance grade for[a]		
	A[1]	C[2]	T[3]
1. Knowledge of state and federal statutes relating to client confidentiality.	57.8 (8.2)	57.2 (5.1)	46.4 (5.3)
2. Tell test takers or their parents/guardians how long scores will be kept on file.	74.1 (5.7)	64.9 (4.0)	66.9 (3.9)
3. Ability to apply ethical standards to career counseling and consulting situations, issues, and practices.	78.4 (6.3)	74.6 (3.7)	68.9 (5.2)
4. Knowledge acceptable actions on standardized tests.	84.0 (4.9)	86.0 (2.7)	75.0 (4.2)
5. Describe the procedures that test takers or their parents/guardians may use to register complaints and have problems resolved.	57.8 (7.6)	50.4 (4.8)	51.6 (4.8)
6. Display of grade--privacy.	75.0 (6.1)	83.0 (3.1)	78.2 (3.7)
7. Ability to recognize situations involving interpretation of ethical standards.	69.0 (6.3)	70.0 (4.0)	66.9 (4.3)
8. Knowledge about ethical issues related to career counseling with women, cultural minorities, immigrants, the disabled, the elderly, and persons with the AIDS virus.	71.5 (6.9)	73.2 (3.8)	64.5 (5.0)
9. Should be skilled in recognizing unethical, illegal, and otherwise inappropriate assessment methods.	78.4 (5.5)	70.3 (4.1)	73.4 (4.1)
10. Knowledge about current ethical and legal issues which affect the practice of career counseling.	75.0 (5.5)	70.0 (4.2)	62.1 (4.9)
11. Knowledge about current ethical/legal issues with regard to the use of computer-assisted career guidance.	63.8 (7.1)	60.5 (4.5)	50.8 (4.8)
12. Provide test takers the information they need to be familiar with the coverage of the test.	77.6 (5.3)	76.4 (3.4)	72.2 (4.3)
13. Knowledge about the code of ethical standards of relevant professional organizations.	73.3 (6.3)	68.5 (4.0)	68.9 (4.6)
14. Provide test takers or their parents/guardians with information about rights test takers.	72.4 (6.4)	68.8 (3.8)	71.8 (3.7)
15. Provide test takers or their parents/guardians with information to help them judge whether the test should be taken.	75.0 (5.8)	72.1 (3.9)	67.3 (4.2)

[a] On a self-report of importance grade
[1] Percentage of importance for administrator
[2] Percentage of importance for counselor
[3] Percentage of importance for teacher

Table 8:

Comparative results on assessment competencies from two international studies

Item description	Impara & Plake (1995)[a]			Cab, Arce & Cisneros (2001)[b]		
	A[1]	C[2]	T[3]	A[4]	C[5]	T[6]
Standard 1: Choosing assessment methods						
Selection of assessment method—basis	.99	.99	.99	.87	.85	.81
Standard test--meaning of measurement error	.79	.91	.76	.72	.68	.75
Using norms correctly	.76	.85	.77	.86	.82	.79
Standard 2: Developing assessment methods						
Teacher made assessment least measurement error	.68	.75	.67	.75	.65	.78
Determining validity	.91	.90	.94	.83	.78	.75
Item construction--essay/performance	.82	.83	.78	.75	.61	.73
Standard 3: Interpreting assessment results						
Interpret teacher-made test score	.82	.83	.78	.78	.63	.77
Interpret Grade Equivalency score	.77	.79	.63	.55	.47	.48
Interpret percentile band scores	.80	.78	.60	.64	.57	.50
Standard 4: Using assessment results in decision making						
Standard test data most useful for classroom	.55	.51	.52	.70	.60	.66
Basis for comparing schools' test scores	.63	.59	.52	.59	.50	.59
Explaining discrepancy between classroom and standard test scores	.55	.57	.47	.66	.57	.60
Standard 5: Using assessment results in grading						
Weighting test scores to give grades	.38	.36	.34	.70	.61	.66
Reliability of tests for grading	.21	.24	.15	.88	.80	.87
Recognize sound grading practice	.85	.85	.85	.82	.71	.74
Standard 6: Communicating assessment results						
Explain basis for grade	.98	.99	.99	.83	.70	.78
Interpret stanine	.59	.67	.37	*	*	*
Using tests for resource allocation	.91	.93	.92	.73	.59	.60
Standard 7: Recognizing unethical assessment practices						
Display of grade--privacy	.98	.96	.98	.75	.83	.78
Test as only criterion for grade	.91	.91	.87	.75	.77	.77

Acceptable actions on standardized tests	.90	.95	.94	.84	.86	.75

* Not included for being culturally irrelevant.

[a] On a test of measurement concepts
[1] Proportion correct administrator
[2] Proportion correct counselor
[3] Proportion correct teacher
[b] On a self-report of importance grade
[4] Proportion of importance for administrator
[5] Proportion of importance for counselor
[6] Proportion of importance for teacher